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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/828,540

04/21/2004

Jun Fujimoto

403048/SOEI

3892

23548 7590 05/10/2007  
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EXAMINER

LAUCHMAN, LAYLA G

ART UNIT

PAPER NUMBER

2877

MAIL DATE

DELIVERY MODE

05/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/828,540

Applicant(s)

FUJIMOTO ET AL.

Examiner

L. G. Lauchman

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-10,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,14,15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Specification*

The abstract of the disclosure is objected to because it exceeds 150 words. Correction is required. See MPEP § 608.01(b).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-10, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al (US 6,486,464) ("Ma"), in view of Laskowski et al (US 6,101,266) ("Laskowski").

As to Claims 1 and 5, Ma teaches (see Figs. 11 and 9) a detecting machine for scanning both sides of a sheet-like object and optically detecting compositions of both sides of the object, the detecting machine comprising:

a first-side light emitting device (142, 172) and a first-side light detecting device (176, 146) disposed closely to each other on a first side of the object;

a second-side light emitting device (174, 152), and a second-side light detecting device (178, 148) disposed close to each other on a second side of the object; and an emission controller (156, col. 10, lines 46-58), wherein the first-side light emitting device is disposed at a position opposite the second-side light detecting device with the object between the first-side light emitting device and the second side light emitting device (Fig.9), wherein the first-side light detecting device is disposed at a position opposite the second-side light emitting device with the

object between the first-side light detecting device and the second-side light emitting device (Fig. 9), and in composite detection the first-side light detecting device (176) detects first-side reflected light emitted from the first-side light emitting device (172) and reflected from the first side of the object (179) and the second-side light detecting device (178) detects transmitted light emitted from the first-side light emitting device (172) and transmitted by the object (179) and second-side reflected light emitted from the second-side light emitting device (174) and reflected from the second side of the object, to detect the compositions of both sides of the object (col. 14, lines 14-50).

Ma does not disclose that the first-side light emitting device and the second-side light emitting device include a plurality of light emitting elements emitting light beams in respective different wavelength bands.

Laskowski teaches a device for identification of an object (see Fig. 2) and corresponding description) comprising emitters (LEDs) producing radiation, which spans the visible range of light and infrared.

It would have been obvious to one skilled in the art to have the first-side light emitting device and the second-light emitting device of the invention of Ma to produce a plurality of light emitting beams in different wavelength bands in order to provide signals, which provide composition of both sides of the object at a number of difference wavelengths in both e transmission and reflection modes, which would enable to collect much more data concerning the composition of the object.

As to Claim 2, 8, and 10, Ma discloses all as applied to Claims 1,5, and 7, and in addition the first-side light emitting device and the second-side light emitting device are disposed so that

light beams emitted from the respective devices irradiate a substantially identical region of the object. (Figs. 9 and 11)

As to Claims 6 and 7, Ma teaches all as applied to Claim 5, and in addition the detecting machine outputs validation signals from the first-side light detecting device and from the second-side light detecting device, the validating machine further comprising an operation determiner for determining whether each of the validation signals outputted from the detecting machine is within a tolerance (see col. 11, lines 41 through col. 12, line 14).

As to Claim 9, Ma discloses all as applied to Claim 6, and in addition the first-side light emitting device and the second-side light emitting device are disposed so that light beams emitted from the respective devices irradiate a substantially identical region of the object. (Figs. 9 and 11).

As to Claims 14 and 15, Ma in view of Laskowski teaches all as applied to Claims 1 and 5. Laskowski teaches that the light the emitting devices emit light within the visible light and near infrared light bands. It would have been obvious to one skilled in the art to have the first-side light emitting device and the second-light emitting device of the invention of Ma to have emitting light within the visible light and near infrared light bands in order to provide signals, which provide composition of both sides of the object at a number of difference wavelengths in both transmission and reflection modes, which would enable to collect much more data concerning the composition of the object.

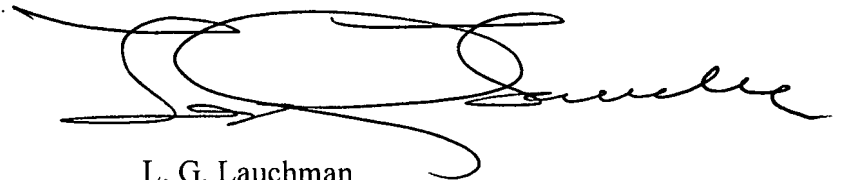
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. G. Lauchman whose telephone number is (571) 272-2418. The examiner's normal work schedule is 8:00am to 4:30pm (EST), Monday through Friday. If attempts to reach examiner by the telephone are unsuccessful, the examiner's supervisor Gregory J. Toatley, Jr. can be reached on (571) 272-2059, ext. 77.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC receptionist whose telephone number is (571) 272-1562.

A handwritten signature in black ink, appearing to read 'L. G. Lauchman', with a stylized, flowing script.

L. G. Lauchman  
Primary Examiner  
Art Unit 2877

5/7/2007